

REWE Group Detox Program Waste Water Testing

**Information Brochure on Waste Water Testing for
REWE Group Supply Chain Partners**

Why did we set up the Detox Program?

Detox Program

REWE Group takes its responsibility for society and the environment very seriously. That is why we joined the Detox Campaign by Greenpeace and set up our Detox Program in 2014. Our Detox program and the Detox Campaign are both pursuing the same goal of achieving a more environmental-friendly and safer textile production for future generations.

We believe we can achieve our ambitious Detox targets only if we cooperate with other companies in the textile industry. Working together with the whole industry, we will have the power to raise awareness about the consequences of hazardous chemicals in textile production as well as be able to find safer chemical alternatives and support our suppliers to handle the new and challenging requirements.

The main purpose of our Detox Program is to enhance the use of safer chemicals in the production processes of textiles such as apparel, footwear and all home textiles by no later than January 2020. With our Detox Program, we are dedicated to improving transparency in the textile supply chain, promoting the use of non-hazardous chemicals in textile production and significantly reducing the release of hazardous substances into the water. Our activities also include training, events and the development of informational materials for our suppliers. Through continuous water and product tests, we ensure the implemented measures are effective.

How do we support our suppliers?

REWE Group is developing and distributing informational materials. We provide our direct suppliers with information and support dyeing mills in the process of phasing out hazardous chemicals. Additionally, we are developing a program for our textile suppliers that will include several training sessions with individual coaching on site.

We also organize waste water tests with our service providers and our suppliers.



Textile wet processes

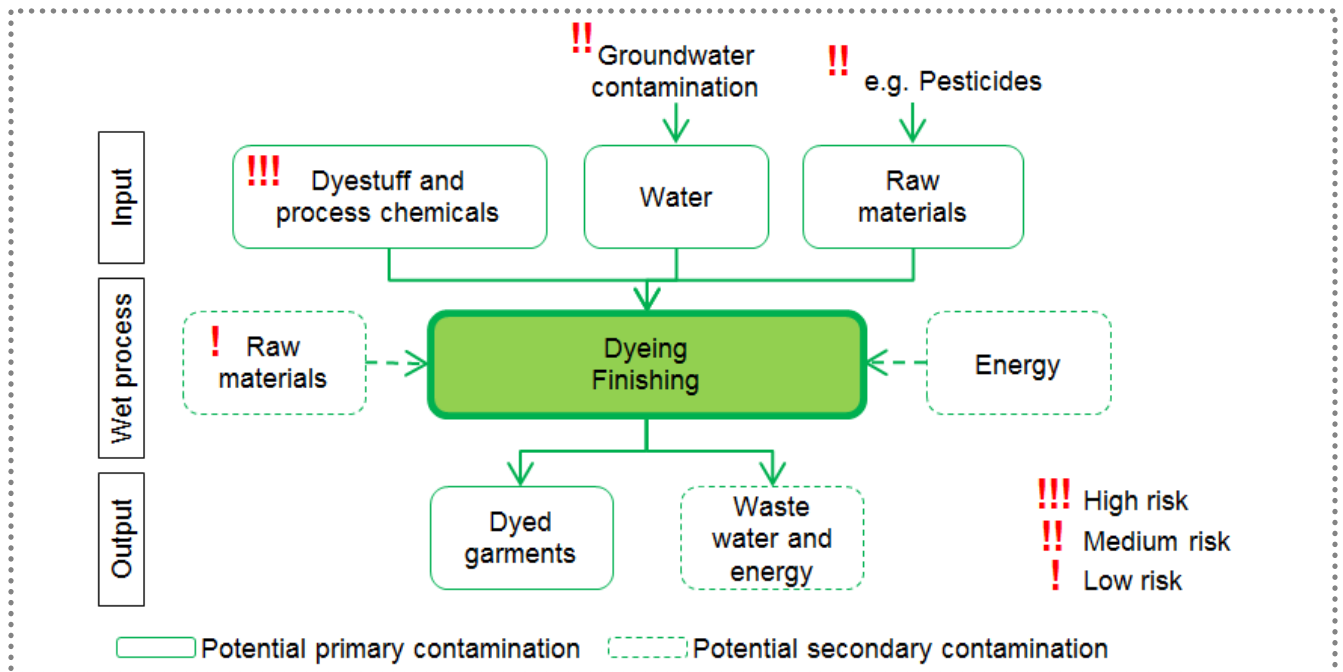
Background information on wet processes during production:

To fulfil the REWE Group Detox commitment, certain chemicals may not be used in the production of our private label textile products (see our [MRSL](#)). To ensure that all of our suppliers conform with our Detox commitment, our suppliers have to give prove through waste water tests. These tests will help us confirm these chemicals are not in waste water and the limit values are met. If the requirements are not yet met, we offer our suppliers and their factories support during the process of substituting these chemicals.

Wet processes consist of three main parts: the input, the wet process itself and the output. Input includes raw material in general, water and chemicals. During the process, all components are added together with energy and further raw materials if necessary.

Each component that is added to the process carries its own risk of contamination. The chemicals could be hazardous, the ground water could already be contaminated with toxins and the raw materials could contain, for example, pesticides.

To eliminate those risks, we have started the Detox Program. We are setting up chemical inventories with our suppliers to get an overview of which chemicals are used. Some chemicals need to be phased out, such as the 11 priority chemical groups. Additionally, the testing of waste water is conducted to ensure that no hazardous substances are released into nature.



Waste water testing process

Sampling and testing:

Testing will be conducted by any service provider who knows our standards and requirements. All suppliers and factories have to bear the sampling and testing costs starting from 2016. The sampling and testing follows the process described below:

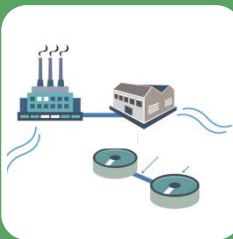


Proof of test report: It is the responsibility of all REWE Group suppliers to ensure that REWE Group's private label products are produced in factories which comply with the REWE Detox requirements. As a result, the waste water for all wet process factories need to be tested against the REWE Detox requirements on a yearly basis.



Supplier contact of service provider: If waste water test reports are not available in the factories that will produce for REWE Group, the supplier has to contact our service provider for scheduling the waste water sampling.

Please find the contact details of our preferred service provider on the last page of this document.



Collection of samples: A factory representative, preferably the person in charge of the chemical inventory, should attend the meeting with the service provider to get better insight into the project and procedures. Sampling needs to be conducted during running production in order to get the most accurate results.

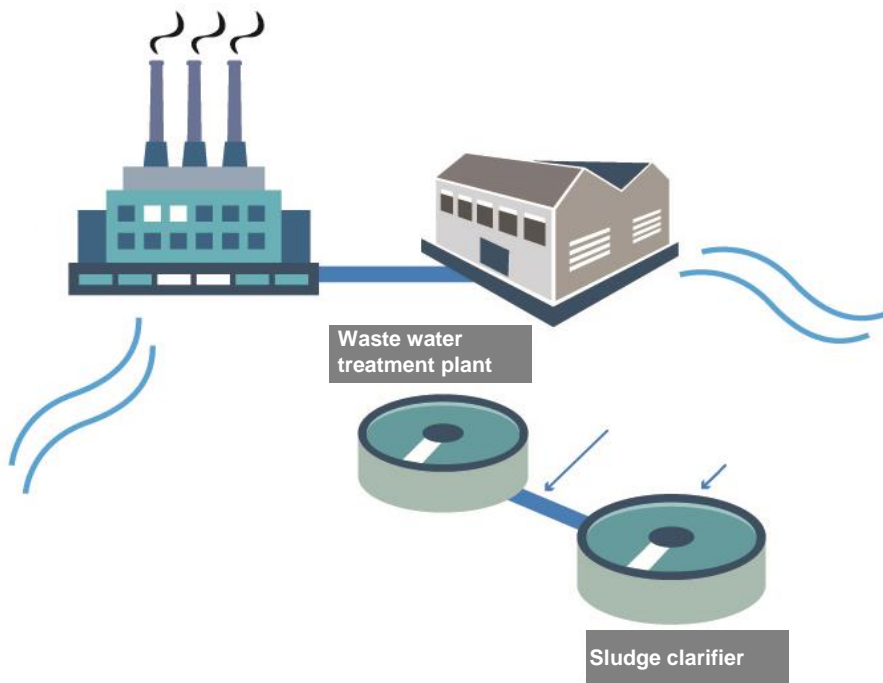


Analysis of samples: The samples will be delivered to a laboratory that will analyse the samples and provide the testing report. The 11 priority chemical groups are the main target of the analysis (see our [MRSL](#)). The test results have to be disclosed on the IPE Platform by uploading the test report. In addition, the supplier is responsible to provide the test report as well as the hyperlink to the test results on the IPE Platform to REWE.

Sampling and testing strategy

It is important that the waste water tests are carried out by a service provider that is approved by REWE Group (see page 8). The service provider who does the sampling and testing has to follow the REWE Group sampling and testing strategy requirements:

- Samples are taken from the effluent after treatment
- Sample method is composite sampling (2h)
- Water will be tested on 11 priority chemical plus general chemistry and all chemicals banned according to the REWE Group MRSL
- For the sampling the ISO 5667 or an equivalent method is used



11 PRIORITY CHEMICAL GROUPS

No.	PARAMETERS	APPLICATIONS	HAZARDS
1	Phthalates	Often found in plastisol prints and in PVC-based materials to soften the materials.	It can alter the estrogen level in human and animal hormonal systems, leading to such health problems as cancers and reproductive and development impairments.
2	Flame retardants	Great concern in protective textiles and materials.	These compounds are suspected to be carcinogenic and their stability makes them dangerous to wildlife.
3	Azo dyes/amines	Commonly used as colorants for textiles and leather dyeing.	Under basic chemical or enzymatic conditions, some azo dyes may release aryl amines that are classified as carcinogens.
4	Organotin compounds	Used commercially as plastic stabilizers, catalytic agents, industrial biocides, antifouling paints, glass coatings and pesticides. TBT and TPhT are the most widely used in textiles, while DBT is still used as a stabilizer in many PVC materials and plastisol prints.	These are environmental pollutants that are particularly harmful and toxic to aquatic organisms even at low concentration. Seafood is a primary source of human exposure to organotin compounds. The most common harmful effects include immunological impairments.
5	Chlorobenzenes	A chemical family often used as a solvent as well as in biocides and pesticides as well as in the manufacturing of dyestuff as a chemical intermediary.	This chemical family affects the liver, thyroid and central nervous system. It is also a hormone disruptor.
6	Halogenated solvents	Often used in textile manufacturing to dissolve substances and to clean fabrics.	These are ozone-depleting substances.

11 PRIORITY CHEMICAL GROUPS

No.	PARAMETERS	APPLICATIONS	HAZARDS
7	Chlorophenols	Used as impregnation agents for textiles and bactericides in leather and paper pulp industries for biocidal purposes.	Chlorinated phenols are harmful to the liver, kidney, lungs and nervous system.
8	Chlorinated paraffin (SCCPs)	Used as plasticizers in rubbers, paints and adhesives as well as fat liquoring in leather.	This is very bio-accumulative in aquatic organisms and an enzymatic disruptor that affects the hormonal system.
9	Heavy metal	Heavy metals naturally occur in the environment. They are present in textiles through metal-complex dyes or prints or as a result of unintentional contamination. For leathers, they are intentionally added in leather tanning in a process called chrome tanning.	Some heavy metals are highly toxic and affect the central nervous system in animals and humans. Others, such as nickel, which is often used in plating, may cause a skin reaction in some consumers.
10	Alkylphenol ethoxylates (APEOs) and nonylphenol ethoxylates (NPEs)	Used as emulsifiers, wetting agents and detergent auxiliaries in scouring and bleaching processes.	They are potent endocrine disruptors to the aquatic environment and can cause feminization in some male fish, resulting in the reduction of fertility in fish, risking population decrease.
11	Perfluorocarbons (PFCs)	A family of compounds used in water or oil repellent finishes for textiles.	These are suspected endocrine disruptors. A recent animal study shows that it may lead to diminished fertility and immune disorders.

Contact:

Preferred Service Provider for Waste Water Testing

Next to the below mentioned testing laboratories any other accredited laboratory with a representative office in Germany can conduct the testing according to our requirements:

Testing Laboratory	RFE Key Accounts
Bureau Veritas	Martina.Kerbl@hk.bureauveritas.com Kenny.Mak@hk.bureauveritas.com Stephen.Tang@hk.bureauveritas.com
Intertek	REWE.DETOX@intertek.com
SGS	Simon.Draeger@sgs.com Jasmine.To@sgs.com

REWE FAR EAST

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